Fall 2004

CS 701: Database Systems and Design I

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F04

CS 701 Database Systems and Design I
Fall Quarter, 2004

Description: An introduction to database design, database system implementation issues and techniques, and advanced data models.

Prerequisite: CS405/605 or equivalent.

Instructor: Dr. Guozhu Dong. 430 RC.

Phone & Email: (937)-775-5066, gdong@cs.wright.edu

Class details: 4:10-5:25pm T and Th, 103 Oelman Hall.

Office hours: 5:30-6:20pm, T and Th; 4:30-5:20, W. Use e-mail for short questions.

Text Book: Fundamentals of Database Systems, 4th edition, R. Elmasri and S. B. Navathe, Addison-Wesley.

References: Database Management Systems, R. Ramakrishnan and J. Gehrke. McGraw Hill.

Database System Concepts, Silberschatz, Korth, & Sudarshan McGraw Hill.

Topics:
- Database design theory and methodology (chapters 10–11).
- System implementation techniques (chapters 15–19).
- Object-oriented and extended relational database technology (chapters 20-22).
- Advanced database concepts and emerging applications (selection of chapters 23–29).

Grading: Midterm 26%, Final 40%, Home work assignments 4%, Project 30%.

Final grade: A=[90,100], B=[80,90), C=[70,80), D=[60,70), F=[0,60).

The project can be either a paper-review or a DB transaction programming; details to be given in project spec.

Home work: To facilitate your understanding, you should read the texts and do as many as possible relevant exercises at the end of the chapters that will be covered.

Several homeworks will be assigned. You will need to submit them by the due dates. Late submissions won't be accepted. These won't be marked. The 4 marks for home work will be used as an incentive for submitting your work on time. Some of the homework questions will be discussed in class after the due date.

Handouts: Handouts, and other course material will be distributed in class. It is your responsibility to collect them. I plan to make these available in the /nfs/valhalla/users28/cs/gdong/701public directory on gamma. Copies of slides are also available in this directory. You can use ps2pdf on UNIX to convert ps files into pdf.

Important dates:
- 10/5, in class midterm.
- 10/7: Project selection (submit a 1-page summary of your project).
- 11/11: Project due (before class starts).
- 5:45-7:45pm, Tuesday, 11/16/04: Final.